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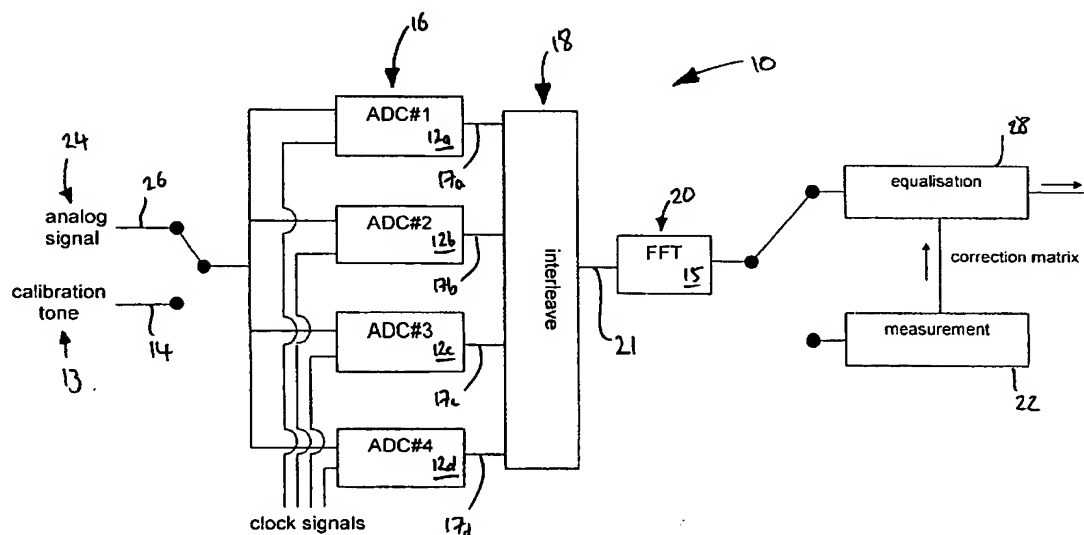
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(54) Title: IMPROVEMENTS RELATING TO TIME-INTERLEAVED SAMPLERS



(57) Abstract: This invention relates to a method of calibrating a time-interleaved analogue-to-digital sampler (10) and to a method of performing analogue-to-digital conversion with a sampler (10) so calibrated. The invention provides a method of calibrating a sampler (10) comprising N time-interleaved ADCs (12a-d), the method comprising the steps of: (a) injecting in turn N calibration signals (13) into the sampler such that each calibration signal (13) occupies one of N related frequencies; (b) determining the input signal for each one of the N calibration frequencies (13); (c) measuring in the frequency domain the output at each of the N related frequencies for each one of the N calibration frequencies; and (d) determining the relationship that relates the input signal to the output at each of the N related frequencies for each one of the N calibration frequencies.



— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

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## INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 H03M1/10

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H03M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, IBM-TDB, INSPEC

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 339 390 B1 (VELAZQUEZ RICHARD J ET AL) 15 January 2002 (2002-01-15)  abstract; figures 9-12 column 17, line 40 - column 19, line 21	1-3,5, 7-11,13, 14
A	US 6 081 215 A (KASSIK RONALD WAYNE ET AL) 27 June 2000 (2000-06-27)	
A	JENQ Y-C: "DIGITAL SPECTRA OF NONUNIFORMLY SAMPLED SIGNALS: A ROBUST SAMPLING TIME OFFSET ESTIMATION ALGORITHM FOR ULTRA HIGH-SPEED WAVEFORM DIGITIZERS USING INTERLEAVING" IEEE TRANSACTIONS ON INSTRUMENTATION AND MEASUREMENT, IEEE INC. NEW YORK, US, vol. 39, no. 1, February 1990 (1990-02), pages 71-75, XP002952453 ISSN: 0018-9456	

☐ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

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			US	6473013 B1	29-10-2002
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US 6081215	A	27-06-2000	NONE		
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